



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/562,836	02/06/2007	Haruo Toyoda	Q91905	4088
23373 7590 08/19/2009 SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037				
EXAMINER				
AZIZ, KETHI T				
ART UNIT		PAPER NUMBER		
1791				
MAIL DATE		DELIVERY MODE		
08/19/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/562,836

Applicant(s)

TOYODA ET AL.

Examiner

KEITH T. AZIZ

Art Unit

1791

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____
- Paper No(s)/Mail Date ____

DETAILED ACTION

1. Claims 1-3 are pending as amended on 5/22/2009, claims 4-5 having been previously withdrawn.
 2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
 3. The rejection of claim 1 under 35 U.S.C. 102(e) has been withdrawn, due to applicant's amendment of claim 1, filed on 5/22/2009.
 4. The rejection of claims 2-3 under 35 U.S.C. 103(a) has been withdrawn, due to applicant's amendment of claim 1, filed on 5/22/2009.
 5. The objection of claim 3 under 37 CFR 1.75(c) is upheld as being in improper multi dependent form. See MPEP § 608.01(n). Acceptable multiple dependant claim wording examples are set forth under MPEP § 608.01(n) (A), such as "A system according to Claims 1 or 2, further comprising...". Appropriate correction is required.
- 11596426

Response to Amendment and Arguments

6. Applicant's arguments, see the amended claims and response, filed 5/22/2009, with respect to the rejection of claim 1 under 35 U.S.C. 102(e) have been fully considered and are persuasive. The rejection of claim 1 has been withdrawn, in light of amendments made by applicant to claim 1. Due to the withdrawal of the rejection of claim 1, the rejection of claims 2-3 is also withdrawn.
7. Applicant's arguments filed on 5/22/2009 with respect to the scope of the invention in the amended claims have been fully considered but they are not

persuasive. The amended form of claim 1 filed on 5/22/2009 recites that the transfer device rotatably holds the tire and may rotate the tire based on the axis of the tire. The original claim 1, filed on 12/29/2005, states that the transfer device simply rotatably holds the vulcanized tire. The rotation about a specific axis has a significantly different scope than general rotation, and as such the amended claim 1, filed on 5/22/2009, represents a change in scope. Since claims 2-3 depend on claim 1, a change in scope in claim 1 represents a change in scope in claims 2-3.

Claim Rejections - 35 USC § 103

8. Claim 1 is rejected under 35 U.S.C. 103(a) as being Japanese Patent Publication 2003-053734, of which U.S. Patent Application 2004/0234637 (Ito hereafter) is being used as an English translation, in view of U.S. Patent 6,660,212 (Balter hereafter), further in view of the teachings of U.S. Patent Application 2002/0079041 (Oobayashi hereafter).

Ito discloses a tire vulcanizing unit method and apparatus. Ito teaches a tire vulcanizer for vulcanizing a green tire. See item 113 of Figure 8, as well as Paragraph [0260] of Ito. Ito further teaches a post cure inflator for treating a tire after vulcanization. See item 27 of Figure 4, as well as Paragraph [0182] of Ito. Ito also teaches a transfer device for receiving the vulcanized tire from the vulcanizer and transferring the tire to the rim of the post cure inflator. See items 111, 114, and 115 in Figure 8, as well as paragraph [0226] of Ito. Additionally, Ito teaches that the tire transferring apparatus is capable of rotatably holding the tire and placing it at a predetermined location in the post cure inflator. See paragraph [0227], as well as item 4 of Figure 2 of Ito.

Ito does not explicitly disclose a means for rotating the tire based on the axis of the vulcanized tire.

Balter teaches a means for rotating the tire based on the axis of the vulcanized tire (see lines 44-51 of column 3). It would have been obvious to one of ordinary skill in the art to combine the means for rotating the tire on its axis as taught by Okada in the process of Ito. The rationale to do so would have been the motivation to uniformly cool the vulcanized tire within the post-cure inflator (see paragraph [0021] in Oobayashi) and generate a tire with a uniform structure.

9. Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ito, Balter, and Oobayashi as applied to claim 1 above, and further in view of U.S. Patent Application 2002/0014301 (Ogawa hereafter).

Ito, Balter, and Oobayashi teach a tire vulcanizing system with a rotatably operated transferring device that can operate at angular positions, a vulcanizer, and a post cure inflator as discussed above. Ito, Balter, and Oobayashi do not teach a system for positioning the tire at a radial force variation peak value on a portion of the rim of the post cure inflator.

Ogawa discloses a method of correcting radial force variation of a tire, and the apparatus for doing so. Ogawa teaches that the process to correct the radial force variation can be carried out by the post cure inflator immediately after vulcanizing the tire by determining a specific position with a specific radial force variation peak value. See Figures 2-3, and 6 as well as paragraphs [0053] and [0054] in Ogawa. It would have been obvious to one of ordinary skill in the art at the time of invention to include

the system as taught by Ogawa in the apparatus as taught by Ito, Balter, and Oobayashi. The rationale to do so would have been the motivation to advantageously improve the radial force variation among uniformity characteristics of a pneumatic radial tire and thereby improve performance. See paragraphs [0002] and [0004] of Ogawa.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following documents are made of record to show the state of the art with respect to tire vulcanization.

U.S. Patent 5,853,648 to Cleveland, drawn to a method of cooling tires after vulcanization.

U.S. Patent Application 2002/0089077 to Ogawa, drawn to a method for extruding a tire rubber material.

U.S. Patent Application 2004/0069391 to Okada, drawn to a method for pre-heating a green tire.

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KEITH T. AZIZ whose telephone number is (571)270-7658. The examiner can normally be reached on Monday through Thursday 8:00am-6:30pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Phillip Tucker can be reached on (571)272-1095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KTA/

/KHANH NGUYEN/
Primary Examiner, Art Unit 1791

Application/Control Number: 10/562,836
Art Unit: 1791

Page 7